

MINUTES  
REGULAR MEETING OF BOARD OF LAND COMMISSIONERS  
June 19, 2006, at 9:00 a.m.  
Room 303 State Capitol Building  
Helena, Montana

PRESENT: Governor Brian Schweitzer, Secretary of State Brad Johnson, Attorney General Mike McGrath, Superintendent of Public Instruction Linda McCulloch, and State Auditor John Morrison

Mr. Johnson moved for approval of the minutes from the May 15, 2006, meeting of the Board of Land Commissioners. Seconded by Mr. Morrison. Motion carried unanimously.

**BUSINESS CONSIDERED:**

606-1      REQUEST TO SET MINIMUM BID FOR GARFIELD COUNTY LAND BANKING PARCELS

Ms. Sexton said this is a request to set the minimum bid amount for Garfield County land banking parcels. In May 2005, the Board approved 32 isolated and lessee-nominated parcels totaling 9,600 acres in Garfield County. The department proposes setting the minimum bid for these parcels totaling 7,040 acres which brings the present acres offered for sale across the state to 19,824 acres. There is a list of the appraisals in the Board's packet. They vary with and without access, the lowest without access is at \$90 and the highest with access is at \$345 per acre. Again, the total acreage in Garfield County is 7,040 acres and the estimated revenue at the minimum bid and that is assuming access is \$998,000. This will be the last large segment of acres that will be passing for minimum bid. We will then go out and set a date, I believe it is October 5, 2006, for the sale of these parcels.

Motion was made by Mr. McGrath to approve the minimum bid for parcels in Garfield County. Seconded by Mr. Johnson and Ms. McCulloch simultaneously. Motion carried unanimously.

606-2      REQUEST FOR FINAL APPROVAL TO SELL LAND BANKING PARCEL #372

Ms. Sexton said I take great pleasure in presenting this to you. On June 20, 2005, the Board gave preliminary approval for the sale of #372, Spring Prairie, this is Section 36 just north of Kalispell, to continue through the land banking process. The Board set the minimum bid in January 2006 at \$41,457 per acre and last Thursday, June 15, 2006, the parcel sold at public auction in Kalispell. The high bid for the parcel was by West Homes and it was for \$75,117 per acre for a total sale price of \$6.4 million. I want to add also, this is not just for the 85.2 acres but also includes the legal access from Four Mile Drive and Tree Line Drive. That was omitted from the information item, but the legal access is included. It is the recommendation of the department that the Board finally approve the first land banking parcel, #372, at Spring Prairie for \$6.4 million. I want to thank the staff and Land Board staffers who attended the auction. It went smoothly and there was lively bidding. This is almost double what the minimum bid was.

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Pages 2 through 20 are unrelated to Otter Creek and excluded from this file.

Otter Creek discussion begins in the "COMMENTS" section on page 21.

road-stream crossing sites per year on state trust lands. In terms of restoring fish passage, we have typically talked about replacing culverts or bridges, upgrading the stream channels at some sites, or even removing crossing structures entirely until they are needed again in the future. When designing these structures for restoration of fish passage we will have to consider quite a few variables such as stream flow, stream size, engineering constraints, and of course financial constraints. The fish passage restorations will also be prioritized based on a broad coarse filter using variables such as species status, species genetics, and existing levels of fish passage impairment. For example, fish passage sites with bull trout, the federally listed species, will be analyzed for restoration before sites with other cold water species. Fish passage sites with genetically-pure Westslope cutthroat trout will be analyzed for restoration before those sites having hybridized populations.

As most of you know, the Forest Management Bureau is in the process of developing a Habitat Conservation Plan for forested state trust lands. Bull trout, Westslope cutthroat trout, and Columbia River red band trout are the three aquatic species proposed for coverage under the Plan. The thirty year timeframe and prioritization schedule described are consistent with the conservation strategies for fish passage that are in the proposed HCP. The information will also allow for the current and future coarse collaboration with other landowners in different watersheds. For instance, I am currently working on a fish passage subgroup involving DNRC trust lands, the Forest Service, Plum Creek, and FWP where we are working on methods to better prioritize fish passage restoration in watersheds with mixed ownerships. DNRC will be working especially close with FWP to ensure the proposed fish passage restorations are consistent with long term species conservation goals. Not only is this close collaboration better for fisheries population management but there will also be opportunities to lower the long term restoration costs across different ownerships.

A quick review of the potential funding sources for the fish passage restorations include grant opportunities, road maintenance associated with timber sale contracts, and Forest Improvement funds. The future also includes enhanced fisheries stewardship and improved water quality.

## COMMENTS

Mr. Johnson said there have been a number of folks from different quarters that have come to me expressing frustration over the lack of progress with regard to developing the coal at Otter Creek. That is a letter requesting we put the item on the agenda next month. We are currently preparing a letter for the department and the other members of the Board that will detail the aspects of that issue that we would hope the department could speak to at the meeting next month.

Governor Schweitzer said Secretary Johnson I am glad you brought that to our attention. I saw that recently at a Republican event you suggested there are available to us some very real and very exciting technologies in the area of coal and the time has come to do more. I think you also mentioned there is a proposal to build "a" plant to convert coal to liquid fuels which is "a ten year ten billion dollar pipedream built on 70-year old technology." I am glad you brought that before us. I note that about ten months into your stay here on the Board you noted to a local newspaper "its been remarkable non-controversial experience and been nearly all unanimous votes." Furthermore I noticed during 18 meetings I tallied the number of times you've either said the word Otter Creek or coal, and that would be in 18 months nine times. Just for your information, I've used the terms 31 times, Morrison 23, and McGrath six. Its good that you're interested today. We've asked the staff to prepare the work that has been done on Otter Creek during the course of the last several months.

Ms. Sexton said I can give you just a brief overview and then Monte Mason has some other information. In the late 1990's we did receive eleven sections in the Otter Creek project area, the mineral rights to those sections designated specifically for potential coal development. Since that time, the department has completed cultural inventories and extensive coal resources logging and coring program. In fact, the 2003 legislature provided \$300,000 in trust revenue funding to acquire additional data. The current study we have now we are doing in conjunction with Great Northern Properties. These eleven sections are quite interspersed checkerboard with Great Northern Properties so they are an obvious interested partner in our efforts here, so we are doing a joint study with Great Northern Properties. The resulting report will include updated geologic modeling, accessing available resources, coal quality, mineability, strip ratio, and the range of expected mining costs. Expected mining costs in this report will include consideration of transportation by rail either with or without the proposed Tongue River Railroad. We are in the process of completing this report as we have visited with many of our partners who are interested in this. When this report is completed it will be made available to the public and we will actually send it to all of our potential stakeholders for review and feedback so we can assemble, as we have indicated to you, a comprehensive plan for the development of the Otter Creek tracts in the most beneficial manner for the state and particularly for trust lands in the area. So we have moved cautiously but deliberately with this process and we are in the process of completing this report, we will then proceed to distributing the report and have a comprehensive plan which we will bring to the Land Board as to how we might develop this. We want to be very thoughtful and cautious with this so that we have the best possible approach because this is a very large area and we want it to be developed to our benefit, particularly for trust lands interest. I know Monte has some specific information and we also have some other information about coal development in Montana generally.

Governor Schweitzer said Monte, would you start with the slide that gives us a historic perspective of Montana coal production going back all the way to 1890 and bringing us forward to 2000. Its interesting that Mr. Johnson suggested there is some kind of 70 year old technology that is being considered because some of the gentlemen who walked into the room just a moment ago come here from Tulsa, Oklahoma to show us their technology, Syntroleum who is making fuels now and has just received a DoD contract to make the synthetic fuels. Of course that is updated. This is very important. The slide begins at 1890 with Montana's historical coal production. Since this discussion of coal came up at a Republican convention we try to keep things non-partisan here but let's just talk about what happened over the last course of years. Let's start with 1952, that was the last year that Governor Bonner was in office, then we drop to 1960 for eight years of Governor Aronson, then we have flatlanded almost nothing until 1968 when Forrest Anderson was elected Governor. Then things got pretty excited in Montana in terms of coal production. So we went four years with Governor Anderson and we increased 10 – 20 fold and went eight years with Tom Judge. We got a little way up here in 1988 to about 39 million tons with Governor Schwinden. That's what it looks like with 20 years of Democratic governors and coal production, and that what is looked like for the previous sixteen years of Republican. The next slide will show us what is happening the last sixteen years in Wyoming versus Montana. This is 1988, this is an increase in coal production from 1988 to present, you can see we're at 39 – 40 million ton. So from 1988 during the Stephens administration, the Racicot administration, the Martz administration somehow we have flatlined in Montana. The policies we had in Montana allowed us to not increase coal production at all. During the same time our neighbors to the south, Wyoming, went from 150 million ton to 400+ million ton during those sixteen years. So, what we are attempting to do is reverse the trend and go back to those years where we had similar to the Anderson/Judge/Swinden years. We have a lot of coal in Montana and its not all contained in Otter Creek. But let's continue on with what has been going on in Otter Creek during the last year.

Monte Mason, DNRC Minerals Management Bureau Chief, said I can speak briefly to some of the activities targeted where we are focusing on the Otter Creek area. Specifically to Otter Creek, the first slide gives a general project location. To the west you see the eastern edge to the Northern Cheyenne Reservation, you see Custer National Forest which surrounds Otter Creek both to the west and to the east, and right in the center would be the Otter Creek property. Zooming in closer, we see the actual area known as Otter Creek, and what you see there is a checkerboard ownership. Initially there were three lighter blue squares there, the Sections 16 and 36, which are the traditional state lands. The darker blue squares are the 7,600 acres we received from the federal government in a grant of lands in 2002. Together those comprise about 9,500 acres. What is very pertinent to the entire discussion related to Otter Creek is our ownership pattern. Typically we are Section 16s and 36s and are not in the driver's seat as far as what happens with development because there is federal and private land and the state will either have a section or so in any particular development. We see this on the other mines that are in Montana. Here we have a checkerboard ownership with Great Northern Properties so each of us have a 50% share of the potential resource that is at Otter Creek. Before we accepted the Otter Creek tracts we did enter into a settlement agreement with the Northern Cheyenne Tribe. That was an agreement that took care of a potential lawsuit that was discussed between the Tribe and the Land Board. They had alleged there would be some impacts to the Tribe based on the development of Otter Creek and they cited some potential violations of MEPA and FLPMA and the federal government's trust responsibility to the Tribe. In resolving that issue, we reached a settlement agreement between the Tribe and the Land Board that provides for coordination, an operating plan that will be implemented upon leasing, outside what is required by the regulatory requirements by the State of Montana. Including, not quotas or preferences, but meaningful opportunity for hiring and contracting through training, recruitment, workshops, hiring a facilitator, dealing with creating a board between the operator and the Tribe to work through issues. It addresses cultural concerns the Tribe may have where we coordinate with the Tribe and look at mitigation and impacts based on the Tribe's cultural standards. We've been proactive with the Tribe from the beginning. After accepting the lands we embarked upon a process of gathering additional data in order to determine the best way of promoting this and developing a mine and ensuring fair market value for the trust. The statistics are updated and points out what the department has been accomplishing over the last several months. As you know, we've been involved with Norwest out of Salt Lake in cooperation with Great Northern Properties to take a look at the data that is available. The data that is available out there now is more than what anybody has analyzed before. Obviously there is historical data the BLM had acquired over the years; there is also proprietary Great Northern Property data that had not been available for public analysis before. There is also the data the department acquired in 2004, the most recent and detailed data, to further define the coal we have out there. The study that is currently going on and should be ready in a few weeks is a culmination of looking at all that data and coming out with the most detailed data we are able to come up with at this time, which is going to be very useful for companies that may be interested in the development of that coal, what their interest level might be, and what they might be willing to bid on it. The statistics are some of the preliminary data we've gotten out of that. So even in broad terms, we have additional data that can be summarized and presented to folks. The estimate, and this is for both sides of the checkerboard – the state and GNP, we're looking at 1.4 billion tons of recoverable coal. The total school trust share, obviously, is going to be half of that. The historic split of the Otter Creek property has been tract I, II, and III into logical mining units. What we have now are much more detailed looks. We have the potential for six logical mining units depending upon how you group them.

Governor Schweitzer said Secretary Johnson you said you were aggressively pursuing, are you familiar with the contract that has been written between the State of Montana and Great Northern Properties?

Mr. Johnson said yes.

Governor Schweitzer said so, is there any questions you have relative to that in developing this?

Mr. Johnson said not at this time.

Mr. Mason said with the coordination agreement between the state and GNP it basically starts from the ownership pattern. We are both out there and we are in the same position in that we have coal but we don't have a way to get it to a conventional market. We need the Tongue River Railroad Company (TRRC), as that goes hand in hand with the conventional development of the Otter Creek property. But we're both in that same boat, so early on we recognized that working together to coordinate our efforts to secure data, to put information out there, to come up with the selection of an initial logical mining unit for lease; the more we coordinate on that the better off we are as co-owners. Obviously, it does the state no good to lease its tracts if GNP is not yet ready to do that. We're not going to get value for our tracts because no mining can be done, and vice versa. That agreement is in place and it is working well.

Governor Schweitzer said in the area in addition to what the State of Montana owns and GNP, there is other coal in a 20-mile radius in that area?

Mr. Mason said there is. The Otter Creek area obviously is the central area. If you come around the Custer Forest and the Tongue River there is the old MontCo area of proposed development, and there is Bridge Creek that has potential for development as well.

Governor Schweitzer said someone suggested that the first ones to lease before there is any infrastructure is likely to get a very low price in a competitive bid for those leases. And the ones who hold out until there is infrastructure, i.e., railroad, a permitted mine, since there are about four or five different owners in the area, the one who goes first may well get the lowest prices and the prices might go up in the future relative to what has occurred in Wyoming.

Mr. Mason said it is an interesting situation. Somebody needs to go. The two go hand in hand, you have to have a railroad, you have to have a coal mine. They both depend upon one another. But for anybody bidding on coal leases, the earlier you are in the process and the more that there is some risk associated with the development of a railroad, if you don't already have it [the railroad] obviously that plays into what you're willing to bid for coal in order to make an economic project. Mr. Mason said I do have some draft information from our study I can go over briefly. The first information I handed out to you was basically in much more cogent form, some written notes I was looking at as I talked to you here over the last few minutes. It is an updated summary with the visuals that are on the screen and also a larger version of the Otter Creek coal tract map. I'd like to have you look at the second handout, the Table of Contents. This is a draft Table of Contents from the report I was referring to. This is the kind of information we are going to have available for folks that hasn't been available at the level of detail or with the amount of source data that is reflected in other reports. They are much older and they are more general. If you look at the first page, data sources are reviewed, their accuracy and adequacy, methodology for review, geology and modeling results. There is a lot of data now over stratigraphic outcrop zones and structure. There are new resource estimations and they are in much more detail than what we've had previously. Coal quality is the key issue out there. Along with quality modeling including all the new data, there is also a review of the vertical variability of the coal. That has been an issue with potential development because we have high sodium coal. Sodium levels out there even with the additional data we've discovered or gathered and analyzed shows we are going to have 7% - 8% sodium in our coal. High sodium is bad in terms of the boilers that this coal is used for. High sodium in the ash will create slag in the boilers and it creates operational problems. Most of the upper mid-west

markets that use coal from Wyoming, Montana, will opt for the lower sodium coal. However, there are a handful, ten plants or so, that we've identified in the study that are capable of handling higher sodium coal and typically currently they are getting their coal from other mines in Montana, up to about 20 million tons per year. That's Spring Creek, et. al. But those mines are playing out, so there is an opportunity even within the current market, an opportunity we have to get this coal in in the next several years to some of those markets.

Governor Schweitzer said Secretary Johnson said there is available to us some very real and very exciting new technologies in the area of coal and that he is aggressively pursuing them. Given what we know about the Otter Creek coal, would you recommend pulverized coal, the technology fluidized bed, or IGCC? And which of the IGCC's could you choose?

Mr. Johnson said the fact of the matter is, that particular project I referred to would not necessary involve Otter Creek coal at all.

Governor Schweitzer said for the rest of the coal in Montana, would you break it into three major classes of coal and which of these technologies would you choose for each?

Mr. Johnson said Governor I did not come here to debate with you today. I came here to raise an issue that I think needs to be addressed. I am frankly, gratified that you directed the department to respond as quickly to my concerns as you did with the preparation of this report. The fact that it was not on the agenda as an informational item I assume it was created in between my remarks Friday and today. It sets the groundwork for us now, as a Board, in a non-partisan and non-confrontational manner to enter into a dialogue beginning at the next meeting that hopefully will take all of us to the end point we want to reach with regard to developing this incredibly important resource in Montana.

Governor Schweitzer said the point here is there has been an incredible amount of work during the last 18 months and while you only referred to it nine times in 18 meetings, there has been a great deal of work that has been done. Today we are going to go through this so that before you make remarks, and I want to be very clear about this to all of us who serve on this Land Board, it is imperative that Montana pull together to develop our resources in Montana. If we are knowledgeable about what we're saying in public about these resources we can be helpful in attracting new investment in Montana. If we are not knowledgeable, we are not helpful. So the reason we are doing this is so no member of the Land Board or any of their staff says some things that may jeopardize future investment in Montana. So we are going to complete this education process here today. We'll go through these technologies, what we've done with Otter Creek and where we're likely to go. Not only with Otter Creek, but with the rest of the coal resources in Montana.

Mr. Johnson said the fact of the matter is, it is gratifying to know that all of this information has been developed. It has not been shared, at least with this member of the Land Board. And if, in fact, that information was in the possession of the department and of your administration, I think it would have been appropriate for it to have been shared with this Board.

Governor Schweitzer said once again Mr. Secretary we are going to continue. I know your staff has been sharing information on a routine basis with the staff of the Land Board and have been actively involved in the discussions of what we are doing with coal and in particular the Otter Creek tracts. We'll just continue because you requested to do it, we'll do it today.

Mr. Mason said I mentioned the vertical variability of coal and it's importance to folks because of the high sodium levels companies need to know (1) what is the make up of the sodium level across the logical mining unit, and (2) also vertically. That gives them key information regarding what they can do to blend coal to meet certain requirements because in the study we have it shows quite clearly that blending will be needed to meet certain markets. What I've handed out here now just as a example, the first page is a conceptual cross section from north to south across the Otter Creek area. I say conceptual because the report has detailed stratigraphic cross sections across the whole area to show the variability of the coal. What you see here is the coal, the Knoblock seam, is not contiguous throughout the area from north to south. In the central part it is. You have the Knoblock seam. As you go north, it does split out into the Upper Knoblock and Lower. As you go south the Upper Knoblock actually parts again into the upper upper seam and the lower upper seam and of course, the Lower Knoblock. That is a conceptual cross section. The additional data I have attached is just an FYI to show a representative color copy of the kind of data they have analyzed, which is vertical distribution of key characteristics of the coal for each drill hole we have out there. What that allows the consultant to do is come up with these summary tables such as C-1, C-2, and C-3 which are vertical quality analyses of the various seams. It includes and shows pre-2004 data, the 2004 data, and all data combined, creating a higher level of confidence for those people that might be interested in looking at this particular resource. Armed with that, what they are able to do is come up with logical mining units dealing with that kind of coal. The map shows the latest review and the latest thinking on the particular logical mining units that might have potential at Otter Creek. The northern part of that, east of Otter Creek, is LMU-1 (logical mining unit) also with area A-1 attached to it. Below it to the south is LMU-2 which is comprised of two sub-areas, areas A-2 and A-3. To the west of Otter Creek you'll see LMU-3, area B-1 and LMU-4 area B-2. Over on the legend of the map you'll see the stripes in there reflect the consultant's work on developing mine plan proposals at the level that is needed to do mine engineering and mine economics to show what kind of production can be expected; what the over burdens might be, and what the cost might be to develop those. They've taken those logical mining units out 40+ years in developing the resource. The draft spreadsheet attached are the data they have come up with for a particular LMU. The first page would be mine plan volumes for each of the LMUs. Down the left side and across the right on the X axis are year-by-year production volumes. Not only do they show production volumes but over-burden ratios, in-situ volumes, rehandle ratios, factors that a potential party would look at to see what is it we have here and what are the economics and what could be done with this to try to make it a profitable endeavor. The last table is taking that data and developing mine cost models that look at what would it cost to do that; capital, cash or non-cash costs, taxes, everything a company looks at. Obviously, if a company gets more serious, they will look at this closer, they will drill more holes, they are then going to go to a much greater degree of detail. But this gives the best look we've had to date on what we've got out there. Where this could go with us, getting to this point; where we intend in the very near future to be back to the Board because ultimately what this leads to is between Great Northern Properties and the state. We need to look at what CoalMont is doing with the railroad, what we've got, what industry interest is in this, and we need to make a decision on how to best get the optimum value for what is a huge resource, 1.4 billion tons. And that is the next step for us, to get this report finalized and polished. As you look through it you'll see it there is still some errors, things put in twice, etc. We've got some final polishing to do which will be done very shortly. We intent to take that out to industry and everybody and we're going to show it around with everybody we can get hold of and see what the feedback is. When I say "we" this is of great interest to both Great Northern Properties and ourselves. With that then, we're (both GNP and the state) going to have to come back to the Board and say this is what we got, here's what we think. We're going to have to come to a decision on when, how, where, which logical mining unit to go with first. You don't lease the entire area out because there are four areas there that each are capable of supporting a logical mining unit. You want to get one out there first. That's where we are, that's what we have. We are going to be back to you.

Governor Schweitzer said thank you Monte. If any of the staff for the Board members would like a further briefing, you are available to make those briefings in the past or in the future?

Mr. Mason said certainly sir.

Governor Schweitzer said I'd like Jeff Hagener up if I could. There is one glitch. All of the discussion of development of coal requires infrastructure. One of the infrastructures we're talking about is the Tongue River Railroad Company. Jeff, I know you've been working for some time with the TRRC relative to the fish hatchery. If you could give a briefing on where we are, I'd appreciate it.

Jeff Hagener, Director Fish, Wildlife and Parks, said we've been working for essentially 25 years with the Tongue River Railroad Company. It was proposed that long ago and has gone through several reiterations. One of the things with the railroad, the biggest concern we've had with FWP is that the terminus or beginning of the railroad is projected to go right along the edge of our fish hatchery in Miles City. The Miles City fish hatchery reflects about a \$25 million investment we've put in there and it also is the only hatchery throughout the U.S. that is raising disease-free pallid sturgeon, which is on the endangered species list and is very close to extinction. It is a major concern of ours exactly how the railroad crosses by the edge of our property. We've had numerous discussions with them, most recently we did have an information item before our Fish Wildlife and Parks Commission to talk about the possible easement that would go across the hatchery. I do have copies of the letter I sent to Tongue River Railroad Company after that. Basically we are in the position that ideally the best alternative for us would be to move the railroad away from the hatchery itself. But on the other hand, if the railroad feels it is the best location, as long as the issues we see are mitigated and well protected in the hatchery production we have there, we think we could go ahead with an easement but that has to be approved by our commission and we're still in the process. One of the major concerns we had at the hatchery was simply vibration. Vibration on fish in larval stages and egg stages can be very influential on whether they are reproductive or not and whether they are going to survive. The TRRC has agreed and within the last month, they went out and started some preliminary studies which we asked them to do to measure vibration of what it would be as the railroad goes around the hatchery so we do know what it is and if there is an impact to the fish. The US Fish and Wildlife Service experts with pallid sturgeon recovery are going to do a follow up study to look at those vibration analysis and see if it would in fact affect the pallid sturgeon. That's effectively where we are, we are in the process of working with them. He handed out the letter he mentioned.

Governor Schweitzer said whether we are talking about Otter Creek or any of the other coal resources in Montana, it means development of infrastructure. Probably the setbacks we've had relative to Wyoming over the last 20 years is that they've been in a position where they had a railroad built right into great quantity of their coal, the other thing is they had some of that coal that had a very low overburden to coal ratio. So they had some advantages. We are concerned about infrastructure so we've been spending a good deal of time on pipeline transmission work. If we could go to that now. You can't move coal out of Montana and you can't sell it unless you've got rail or unless you've got pipelines in terms of liquids or unless you've got transmission lines. Dozens of coal companies, technology companies and financial companies have been to Montana and when they come we show them this overlay of Montana's coal deposits relative to where we have infrastructure: pipelines, transmission lines, etc.

Evan Barrett, Governor's Office of Economic Opportunity, said whether it be Otter Creek or other coal that we own or general coal in Montana the infrastructure is an important thing. There are many possible projects in Montana, Otter Creek is only one of them. The business decisions that need to be made are often driven by the presence of the infrastructure, the highways, railroads, transmission lines, pipelines,

and of course juxtaposing those to the location of the coal. I'll hit on some potential transmission projects for Montana. First would be the Northern Lights. Of course, right now what Montana has done, especially when you look at this period of flat growth, is we are just simply moving coal. We're not moving electrons. There are two ways to make advantage of our coal presence in Montana and moving coal out on railcars is just one version of it. In fact, the moving of electrons provides the opportunity to produce better jobs and a better tax base by the presence of the plants it would take to do that. Subject to the transmission lines. The first would be the Northern Lights and that is high voltage direct current line. The Northern Lights project is a line that originally was going to come out of Canada, but now this line is designed to start in Montana, probably in Townsend, with a feeder lines from the eastern coal fields feeding in here and a direct current line down to Las Vegas. Linking from there longer term into Los Angeles and into the Phoenix and the southwest area. This is a loop that should complete the circuit. This kind of a line is well advanced. He showed a slide depicting a comparison between normal transmission lines that are grid lines moving about 3,000-4,000 mega watts of power and what a DC corridor looks like delivering 3,000 mega watts of power. This is an advanced technology. It has certain constraints upon it but it is a good technology. This particular line is soon to be submitted to the BLM for the initial permitting that will come into place which will then be followed with DEQ playing our role in the permitting.

I want to mention our participation in the Frontier Transmission Line. The Frontier Transmission Line is a line that is basically used to do more connections into California through Nevada, Wyoming, and Utah. Montana and Idaho have been working with the principals of this line and the other states to get the northern end hooked in. Actually you may have heard of the Frontier Line and probably the Northern Lights project will become integrated with the Frontier Line or in fact happen in front of it and the Frontier Line will piggyback on top of the Northern Lights project.

I want to mention the Montana-Alberta tie line. This particular line comes from Alberta down into Great Falls. It is not a long line but it does an awful lot. It does two things, one is to gather. Because alternative energy is another important element of our moving of electrons in a balanced portfolio to the 600-pound gorilla market in California which is looking for renewables as part of the portfolio. This is particularly helpful in moving wind power. In addition to that, this is a big time project about increasing the reliability and stability and competition into markets. Right now we have some difficulty moving electrons out of Montana and this will help stabilize some of those sources. In addition, we are working with BLM, which is the lead agency in the energy policy act which calls for, in Section 368, the creation of the selection of corridors for public land, Section 2-1221 is for private corridors. There are public corridor issues in western Montana. As we get into Section 1221 there will be more activity in establishing a corridor but we are working with BLM in terms of identifying the corridors for getting outside of Montana for future transmission development. Those same corridors can be used for pipelines as well. The Rocky Mountain Area Transmission Study (RMATS) which we've been working with since we got here shows the outlook for the Rocky Mountain area. Based on that study most of the movement inside the state is projected east-west movement and not north-south movement because the markets, the south markets, are outside of the area.. The broader look from the outside is that when you look at it there is a major corridor, Northern Lights has identified it and its predominantly on federal land, so we can take the Montana product and move it through these corridors that are north-south. Not only will we do the east-west, but we will do the north-south movement under the RMATS analysis and we are proceeding in those veins. As a point of reference, all of these transmission projects are now under review at DEQ. The last one has just been completed. But there is a whole series of these that relate to the interconnecting east-west. To the east end with WAPA and to the west with BPA. Of course, we also have the Northern Lights and the RMATS that take us on the north-south route which is not identified in here yet because those projects will be coming forward after the Northern Lights project has been advanced.

He showed a map of the pipelines and transmission lines in relationship to the energy resources. You can see the different kinds of coal. The lighter is lignite and the medium colored is sub-bituminous coal. The bituminous coal in the darker color. The juxtaposition of the coal mine opportunities is Otter Creek. Right now its biggest challenge is the lack of infrastructure to support the development, among others including making sure that constitutionally we get the right price for it. The lack of infrastructure affects the price. If you're going to buy coal and you have no means for delivering it, you will pay less for it than if you got the delivery mechanism in place or at least laid out planned and financed. Then the value of the coal goes up.

Governor Schweitzer said earlier on I asked the question what would you choose? Pulverized coal, fluidized bed, IGCC. It depends upon where your market is to begin with. Just last week I was with Governor Schwarzenegger and they were anxious to buy 20,000 mega watts of electricity and more but they will only buy coal if it is Integrated Gas Combined Cycle (IGCC). They won't accept PC, they won't accept fluidized bed. Unless we are able to sequester the carbon dioxide and blend it with so-called other green power like wind, we are not going to be in the market of selling electrons to California. So, if in fact we are going to IGCC, that will be one of the directions we go because California has such a large market, then we have to slice and dice which of these coal fields are we developing because there are contrary to some suggest 70-year old technology, technologies that are evolving right now companies with patents that favor one kind of coal over another. For example, the GE technology is one that favors bituminous coal. We have a very small quantity of bituminous coal. The Shell technology is coal neutral but it is expensive technology to get that neutrality. The Kellogg Brown and Root and Southern Company has developed a technology that is very good for so-called Powder River Basin coal which should be for the most part sub-bituminous but it is also a technology that would work with Montana's lignite. So, when we are talking about what to develop in Montana as companies come, and there have been dozens that have come here, we gave them a matrix that looks like this, we show them where our pipelines are, we show them where our electricity lines are, we show them what kind of coal we have. So we've spent a great deal of time developing this information so when companies like Syntroleum, who is here today, come to Montana to ply their new technology with coal we have in Montana, in a very short period of time they can slice and dice and say does my technology work on your kind of coal? Do you have the infrastructure that surrounds a particular coal field? Who owns it? How much? How deep? What strip ratio is. This has taken a fair bit of time putting these resources together but it is imperative if we are going to develop the coal fields in Montana. That, frankly, is what has been lacking for the last 20 years, the ability to go out and sell those resources we have in Montana and be competitive with states like Wyoming. We are becoming competitive because of this kind of work.

Mr. Barrett said I'll mention the types of Montana coal. The first one is bituminous. By and large that's got a high BTU value and low moisture. Those are the two major contributors. We don't have much of that, we have a lot of sub-bituminous and that is where most of our opportunities are going to go for some of the new technology. Albeit some of them are now able to use our lignite as well. In this case you have kind of a medium level of moisture and the BTU content is significantly higher than the lignite. The next is lignite. Remember when we showed the map, a lot of the east is lignite and it slops over into North Dakota. That lignite, some people call it junk coal, but new technologies have been developed that can actually utilize and do coal gasification liquefaction out of the lignite but it does have a high moisture content and lower BTU content and a lesser value.

Governor Schweitzer said the point I want to make is when we are dealing with lignite and those vast resources of lignite technology we have this will never be coal-by-rail. The BTUs are relatively low, 6,500, the moisture content is greater than 30%. This will not be a competitive coal by rail. Our sub-

bituminous coal can be competitive coal-by-rail and our most competitive coal-by-rail would be our bituminous – lowest moisture highest BTU.

Mr. Barrett said I want to hit the generation plants we've been looking at. Obviously, the top, newest technology, the cleanest technology is IGCC power plants. What those are about is producing actually electrical power in a manner that gets the maximum benefit and it captures most of the bad stuff in the processes because they are chemical processes rather than pyrolytic processes, coal-fired processes. California right now is only willing to accept certain power that is produced with this kind of quality where you can capture and sequester, and ultimately sequester, which is an additional level of challenge of the carbon and at the same time they want a blend of other renewables in their power as well. Which is why the wind generation power in combination with this is important.

The Pulverized Coal Power Plant (PC) is the traditional power plant. That is the one that gets all the bad reviews because it pumps all kinds of stuff. This is the oldest technology that has been used. Ninety percent of the power plants in the world are coal-fired like this. That is part of the challenge we have environmentally now and with the market. The market is now turning away from these kinds of plants. The last is the circulating fluidized bed plants. We have one of those in Great Falls under permit application right now, the Southern Montana Electric Group and the Nelson Creek Project in Circle anticipates being a CFB power plant. It is significantly cleaner with the newer technology than pulverized plants but it does not easily allow the capture, particularly of the carbon. When we talk to people we are urging the movement to the IGCC because that is where the market is going. The liquefaction processes are important. Basically when we are going to be making liquid out of this, and the story was out in the *New York Times* that this summer the Air Force will run a B-52 partially on liquefied synthetic fuels as an experiment. This is not pipedream stuff. The Defense Department is putting its foot forward for the first time to actually take the product and put it in a plane and fly it as a comparison mode to the other. Syntroleum is the one producing that. What we're talking about is gasification. The processes are you create a syn gas out of the coal, you take the syn gas and run Fischer-Tropsch out of it. You link two processes together but there are a lot of technicalities in it. These are the main gasifier technologies. The GE is a high-ranked coal, and it appears not to work very well in Montana unless you are using it on our bituminous coal. The same thing with the Conoco-Phillips. The Shell gasifier uses a lower rank of coal but it is not extraordinarily efficient but it can work. The KBR technology is a kind that can use our coals completely. In addition, there is a fifth technology that is owned by an outfit called Sustech. They can use all types of coals, including waste. So what we have to be about is getting private companies to marry their technologies together. Syntroleum is here today and their status is they have a plant that has been producing actively in the United States but with gas and their next step is the conversion to linking the coal into it. Rentech currently has a plant that they are going to be doing in Illinois which is tied into an ammonia plant that will be using coal and converting it into a liquefied product. We have five technologies to turn it to liquid. These five technologies in a business deal have to be combined with the gasification technologies to make a marriage that will work economically given the coal and then given the other economics of the project. This obviously is the reference you were thinking of when you were talking about 70-year old technology, but its has been about 50 years since it has been commercially proven in South Africa after World War II. The Shell was proven in 1993 and they are too busy to care about doing anything in the U.S. right now. They have put a plant up in Cutter and that is all they are interested in doing. This is the outfit that doesn't want to really talk to us. Syntroleum and Rentech have been very active participants in this effort to marry technologies up with the gasification and the Fischer-Tropsch technologies. Those are the kinds of things we've been working on throughout this process. We probably have the best "Rolodex" of names/numbers and companies/individuals and technologies of anyone in the country. We are looking forward to a time here in relatively short order where some of these business partnerships will come together and it won't be pipe dreaming this, these

are significant investments. They aren't necessarily ten billion dollar investments, frankly, a billion and a half investment will probably get you a 10,000 – 15,000 barrel per day operation. When you get into the 80,000 barrels per day you're talking about \$7 billion investment. There are significant job impacts, significant capital costs, significant tax impacts that are positive. They aren't really boondoggles and I think from our perspective and moving forward we are looking forward to being able to put some Montana-owned coal into these processes for the good of the state and hopefully have them announced fairly soon.

Mr. Johnson said I didn't come here today to debate but my remarks with regard to ten years and \$10 billion with regard to 70-year old technology had to do with what I read in the coverage of the Governor's announcement some months ago of his coal-to-fuels initiative and from that coverage the indication was the project was considered to be a ten year-ten billion dollar project. It was going to rely very heavily on Fischer-Tropsch which was according to my research developed in the mid- to late-1930's in Germany. It's that simple. Again, I didn't come to debate and I find all this very exciting. But I think we need to maintain the perspective here.

Mr. Barrett said thank you Mr. Secretary of State, I am hopeful that as we move this forward it is always good that we are all on the same page., that we understand how up-to-date all this new technology is and what the opportunities are so that Montana speaks with one voice when we approach people about investment opportunities. That they see that Montana is all onboard. I hope this has been helpful in terms of broadening everybody's perspective on a lot of the stuff we do. One of the things in business development, we don't often broadcast everything you're doing because in business development you want to let the private side come together and coalesce and put their money together and get ready to rock and roll. Hopefully this helps illuminate the kind of stuff we have been doing.

Governor Schweitzer said by all means to members of the Land Board if you have an interest in any of this coal information and its beyond the scope of what Mary and Monte have and make available to you, please come and see us. We are looking for partners, we are looking for additional information. We don't have all the answers but frankly, in your own words Secretary Johnson, almost all of our decisions have been 5-0 decisions, we've worked very closely together here and there has been little discussion or debate about coal. As I said I think your comments were limited to nine during the last 18 months. We want to work very closely, and when you publicly said you need to know what's going on with Otter Creek, we thought this would be a good opportunity because maybe we haven't spent enough time briefing the Land Board. It was great you brought that up.

Ms. McCulloch said since you gentlemen brought up the issue, and you did mention the number of times the gentlemen on the Land Board have brought up the issue of Otter Creek, as I have made a good point a number of times I am much better at getting things done than talking them to death as I frequently chastise the gentlemen not only on the current Land Board but on the previous Land Board in all good humor of course. But I will remind the Land Board and maybe to the new members of the Land Board that Otter Creek has been something this Land Board has participated in quite actively. More so my first term on the Land Board than this second term. I recall about the first year, 2001, this issue was pretty much deadlocked. It was going nowhere. We were very frustrated in my office and began working with the Northern Cheyenne Tribe. At the time it was Chair Small that we worked with and was very frustrated with the issue. We knew that the first thing that had to happen was that all parties needed to get together so by the end of that year we did bring all members of the Land Board, via their staffers, together in the then-Governor Martz' office. We also brought together the department as well as the Tribe at that time for what was to be a one-day meeting on this issue to get some information ironed out. We also began discussions with Great Northern along this line. What turned out to be not a one-day meeting was

either a two or three-day meeting we were able to iron out many of the issues and had a handshake among all parties to get this going and moving. It was quite historic. Frankly, we probably did step on some toes along the way. We probably did threaten some private self interests along the way as this issue of Otter Creek, which is never very far from my mind, has been at least to my knowledge the only issue that I have as Superintendent of Public Instruction have received a threat over. So you see, Otter Creek is not something that is very far from my mind or very far from you even when I fail to mention it at the meetings here. I just wanted to make sure and remind those on the Land Board of the significance of the Land Board in getting the ball rolling with Otter Creek.

Mr. Johnson said I want to thank the department for a truly comprehensive job on this. And Mr. Barrett's concerns about not want to divulge marketing strategies across the board I certainly understand but I would hope that this would be a learning experience for all of us today and that as we move through this process of developing what is an incredibly important asset to the State of Montana that we would receive periodic briefings without it having to be precipitated by something that perhaps was more confrontational than it needed to be.

Ms. Sexton said we would be glad to do that. As recently as March we did distribute updates as we have contacts with entities. We did distribute updates and we did distribute that on Otter Creek to all Land Board members in March.

Motion to adjourn was made by Mr. McGrath. Seconded by Mr. Morrison.